

SOUTHERN TEXTILE BULLETIN

VOL. III

CHARLOTTE, N. C., MAY 23, 1912

NUMBER 12

Re-Organization
of
Old Mills
a Specialty

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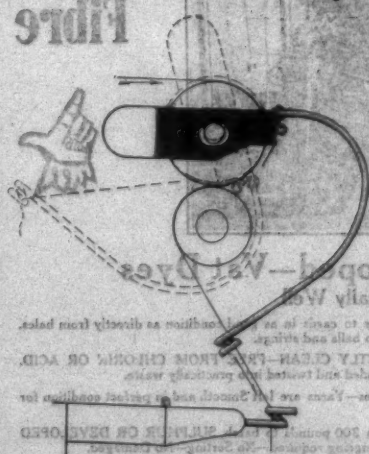
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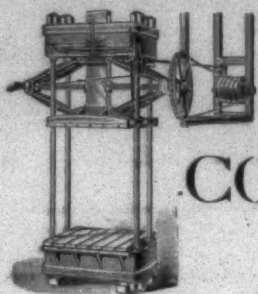
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CHARLOTTE, N. C.

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OF

Southern Cotton Mills

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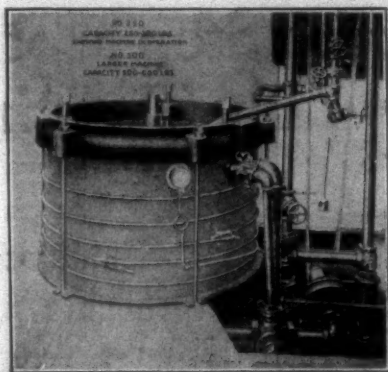
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SOUTHERN AGENT, O. A. ROBBINS, - - CHARLOTTE, N. C.

SOUTHERN TEXTILE BULLETIN

VOL. 3

CHARLOTTE, N. C., MAY 23, 1912

NUMBER 12

Tariff Board Report

Compilation of Yarn Organization in Different Mills for the Same Count of Yarn, with Labor Cost for Each Mill
Ring-Spun Warp Yarn

Mill and yarn number	Finisher lapper (ounces per yard)	Card sliver (Grains per yard)	Drawing sliver (grains per yard)			Slubber		Intermediate		Fine frame		Spinning frame			Labor cost per pound of yarn
			First process.	Second process.	Third process.	Hank roving	Speed, front roll (revolutions per minute).	Hank roving.	Speed, front roll (revolutions per minute).	Hank roving	Speed, front roll (revolutions per minute).	Speed of spindles (revolutions per minute)	Speed, front roll (revolutions per minute)	Twist per inch	
No. 10 yarn:															
Mill No.—															
6	13.80	63			61	0.60	172	1.25	152	3.86	114	7,000	148	15.02	\$0.012168
17	14.88	70			90 .....	.50	145			1.50	138	7,297	146	15.91	.013650
18	13	56			65 .....	.50	200			1.70	138	9,500	200	15	.011346
25	16	74			82 .....	.42	223			1.60	180		170		
30	13.50	60			94 .....	.50	200			2	165	7,000	148	12	.011066
65	11.50	52			66 .....	.50	221	1.54	169	2.75	160	5,950	167	11.07	.009795
No. 12 yarn:															
Mill No.—															
17	14.88	70			90 .....	.50	145			1.50	138	7,375	140	16.77	.016380
30	13.50	60			94 .....	.50	200			2	165	7,500	145	13	.016246
28	12	64 .....				.64	210			2.75	152	7,136	120	17.50	.017721
62	14.50	65			72 .....	.60	122			1.50	196	7,850	142	16.81	.010144
70	14.50	65			60 .....	.54	160	1.20	180	3.40	140	7,700	150	16.25	
60	14	65			65 .....	.56	175			2	92	6,180	156	16.45	
65	11.50	52			66 .....	.50	221	1.54	169	2.75	160	6,350	162	12.12	.011986
No. 14 yarn:															
Mill No.—															
6	13.80	63			61 .....	.60	172	1.25	152	3.86	114	7,000	148	15.02	
30	13.50	60			94 .....	.50	200			2	150	7,900	141	14	.019475
28	12	64 .....				.64	210			2.75	152	5,432	125	19.50	.021240
53	11	65			65 .....	.60	175			2	160	7,087	126	8.03	.022405
65	11.50	52			60 .....	.50	221	1.54	169	2.75	160	6,700	158	13.10	.014244
No. 16 yarn:															
Mill No.—															
30	13.50	60			94 .....	.50	200			2	150	8,300	139	15	.018992
65	11.50	52			60 .....	.50	215	1.54	169	2.75	160	6,950	154	14	.016518
59	14	60			60 .....	.69	215			2.50	135	7,500	142	19	
No. 20 yarn:															
Mill No.—															
4	11	59			63 .....	.52	190	2	190	2.60	160	8,000	115	11.40	.015996
18	13	56			65 .....	.50	200	1.40	138	2.20	120	9,500	200	19	.021103
30	13.50	60			94 .....	.50	200			3	120	8,800	131	17	.033909
28	12	55 .....				.80	163			5	108	7,743	104	24	.032707
38	12	46			65 .....	.65	178	1.85	120	4	117	9,000	132	19	.020802
41	12.80	60			60 .....	.47	154	1.25	145	4	127	9,400	127	23.68	
49	13	65			78 .....	.48	200	1.03	170	2.90	155	7,000	100	22.26	.041512
41	15	68			70 .....	.50	165	1.25	150	4	135	9,200	128	22.20	.020814
65	11.50	52			66 .....	.50	221	1.54	169	3.75	138	7,400	146	15.65	.021596
59	14	60			70 .....	.60	220	2	160	6	120	8,000	128	21.24	

(Continued on Next Page)

Compilation of Yarn Organization in Different Mills for the Same Count of Yarn, with Labor Cost for Each Mill

Ring-Spun Warp Yarn

Continued from Page 3

Mill and yarn number	Finisher lapper (ounces per yard)	Card sliver (Grains per yard)	Drawing sliver (grains per yard)			Slubber		Intermediate		Fine frame		Jack frame		Spinning frame			Labor cost per pound of yarn
			First proc.	Second proc.	Third proc.	Hank roving	Speed, front roll (revolutions per minute)	Hank roving	Speed, front roll (revolutions per minute)	Hank roving	Speed, front roll (revolutions per minute)	Hank roving	Speed, front roll (revolutions per minute)	Speed of spindles (revolutions per minute)	Speed, front roll (revolutions per minute)	Twist per inch	
No. 21 yarn:																	
Mill No.—																	
7	14	59.9			71.1	0.44	195	1.04	170	3.40	133			8,835	127	22.94	\$0.016735
11	13	60			50	.55	205	1.20	298	3	160			9,000	120	18.33	.024346
23	13	56			72	.40	180	1	165	3.10	135			9,500	130	21.76	
33	10	55			70	.50	189	.93	160	5.13	110			9,300	130	21.77	.017127
30	13.50	60			94	.50	200			3	120			8,900	130	18.00	.031860
33	10.50	50			50	1.00	170			3	150			9,000	126	22.27	.017127
62	14	60			61	.73	114			2.25	154			7,650	113	22.21	.021722
60	14	65			65	.56	175	1.25	150	2.78	119			8,600	128	21.76	.030317
65	11.50	52			66	.50	221	1.54	169	3.75	138			7,500	144	16.04	.030717
No. 22 yarn:																	
Mill No.—																	
30	13.50	60			94	.50	200			3	120			9,000	128	18.50	.028433
50	12	52			70	.50	205	1	170	3	132			9,000	118	24.37	
47	12.50	58			80	.40	188	1	170	3.12	145			9,200	130	23.00	.020266
48	12.50	56			56	.40	212	1.08	160	3.12	138			9,300	131	23.00	.023058
16	13	55			62	.50	172	1	170	3.33	141			8,700	120	23.28	.018852
70	14.50	65			60	.54	160	1.50	153	4.25	138			9,100	130	21.37	.018741
65	11.50	52			66	.50	221	1.54	169	3.75	138			7,600	143	16.42	.024341
59	14	60			70	.60	220	2	160	6	120			8,000	128	22.28	
No. 24 yarn:																	
Mill No.—																	
1	12	60			70	.50	186	1.40	133	4.50	126			9,800	124	22.43	.023744
8	16	56			50	.70	196	2	112	4.60	96			9,500	122	23.27	.015115
50	12	52			70	.50	205	1.50	158	5	105			9,000	110	24.42	
59	8	84.8			86	.37	200	.81	200	2.09	155	6.35	100				
57	14	55			60	.50	199	1.50	169	3.20	149	7	94	8,500	110	23.25	.036984
65	11.50	52			66	.50	221	1.54	169	4.50	138			7,800	141	17.15	.027189
No. 28 yarn:																	
Mill No.—																	
1	12	60			75	.50	186	1.40	133	4.50	126			9,800	108	25.80	.07702
7	14	35.7			63.1	.55	170	1.06	155	5.50	119			9,641	107	27.38	.024536
19	11.4	57			63	.52	190	1.41	150	5.40	124			9,000	132	22.49	.024169
38	12	46			65	.65	178	1.85	120	6	102			9,000	130	24.00	
50	12	52			70	.50	205	1.50	158	5	105			9,000	108	26.46	
39	12	65			72	.40	197	1.30	180	5	120			9,280	115	25.29	.030335
41	12.8	60			60	.47	154	1.25	145	4	127			9,400	119	25.17	.025271
44	12	58			59	.54	170	1.48	140	4.25	128			9,400	110	25.00	
54	12	50			64	.60	200	1.51	146	4.52				9,000	107	26.85	
53	12.5	58			51	.65	210	1.75	158	5	110	5	136	7,000	116	25.36	.038001
37	7.75	48			56	.60	204	1.50	165	5.25	137			9,200	118	25.17	
39	13	46			55	.60	183	1.60	145	5.10	120			9,800	125	26.49	.027990
41	15	68			70	.50	165	1.25	150	4	135			9,200	111	25.38	.025271
59	8	84.8			86	.37	200	.81	200	2.09	155	6.35	100				
70	14.5	65			60	.54	160	1.50	152	4.25	138			9,400	120	26.31	.023359
60	14	65			65	.56	175	1.33	141	4	123			8,600	114	25.13	.040665
65	11.5	52			66	.50	221	1.54	169	4.50	117			7,900	135	17.99	.032483
No. 29 yarn:																	
Mill No.—																	
7	14	44.8			63.1	.55	170	1.06	155	5.50	115			9,641	107	28.38	.025807
14	12	52			58	.60	175	1.85	128	5.38	120			8,439	104	25.22	.016951
22	14	64	65	68	68	.50	145	1.43	145	4.50	128			9,400	114	25.00	.024633
35	10.50	55			72	.56	200	1.36	174	4.16	200			9,000	104	24.00	
36	10.50	55			66	.65	207	1.37	150	4.24	128			9,200	110	25.65	
44	12	58			59	.54	170	1.48	140	4.25	128			9,400	110	25.00	
37	7.75	48			56	.60	204	1.50	165	4.70	137			9,200	114	26.71	
No. 30 yarn:																	
Mill No.—																	
3	11.68	49			52	.68	168	2	185	5.70	106			8,700	104	27.31	
4	11	59			63	.52	175	2	128	5.26	103			8,000	95	13.95	.027326
7	14	44.8			63.1	.55	170	1.06	155	5.50	115			9,641	107	28.38	.027091
8	16	56			50	.70	196	2	98	6.25	96			9,500	110	26.00	.018865
13	10.50	40	44.5	50		.67	230	1.75	152	5.50	120			8,570	112	25.27	
18	13	56			65	.50	200	1.25	138	5.25	120			9,500	114	24	.030311
49	11	48			54	.48	200	1.10	165	3	155	8.50	90				.047700
27	7.75	48			56	.60	204	1.50	165	4.70	137			9,200	110	27.27	
39	13	46			55	.60	183	1.60	145	5.10	120			9,800	110	27.78	.030010
59	8	84.8			86	.37	200	.81	200	2.09	155	6.35	100				
57	14	55			60	.50	199	1.50	169	3.20	149			8,500	100	26	.037620
65	11.50	52			66	.50	221	1.54	169	4.50	117			7,900	133	18.35	.035769
66	12.50	43			60	.60	190	1.04	180	2.60	200	6.50	118	8,800	120	23.25	
21	12	43			58	.42	168	1.08	148	5.15	118			9,500	118	26.13	
No. 36 yarn:																	
Mill No.—																	
19	11.4	57			63	.52	190	1.47	150	6	124			9,000	110	25.50	.031075
38	12	46			80	.45	250	1.25	195	3	182	8	94	9,000	125	26	.046950
41	10.8	50			50	.45	161	1	181	2.66	145	8	118	9,400	110	27.78	.039400
52	11.5	46			72	.50	216	1.15	214	3	176	8	96	8,400	98	23.57	.033548
54	12	50			64	.60	200	1.66	146	6.25				9,000	92	29.73	.024167
57	14	55			60	.50	199	1.50	169	3.20	149	7	94	8,500	95	28.50	.046715

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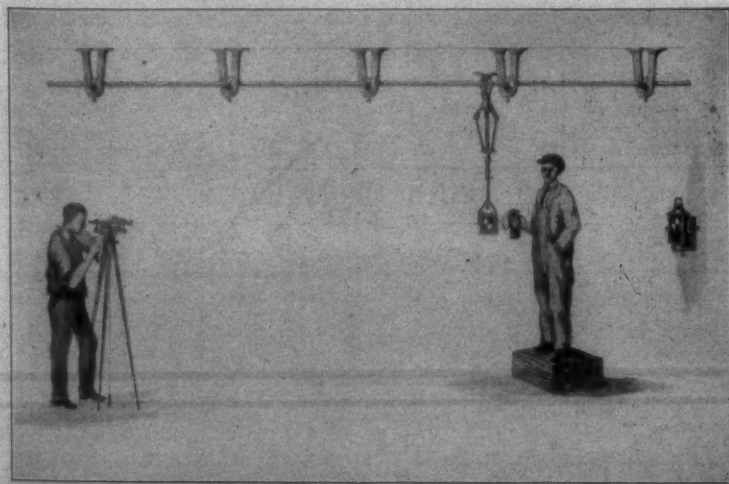
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61	12.5	44	68	.40	210	1	200	2.50	190	6.25	112	10,000	142	28	
66	12.5	43	60	.60	190	1.04	180	2.60	200	8	108	8,800	114	25.50	
No. 32 yarn:															
Mill No.—															
19	11.40	57	63	.52	190	1.47	150	5.40	124			9,000	120	24.05	.027623
42	12	50	80	.45	188	1.10	153	2.50	118	6	96	9,000	100	27.30	.035894
70	14.50	65	60	.54	160	1.50	153	6	122			9,500	112	27.25	.032536
No. 40 yarn:															
Mill No.—															
57	14	55	60	.50	199	1.50	169	3.20	149	8	91	9,293	98	31.38	.023717
21	12	43	60	.56	220	1.35	145	3	140	8	95	9,000	120	30.50	.051981
38	12	46	80	.45	250	1.25	195	3	182	8	94	9,000	104	26.02	.048019
40	16	48	73	.40	170	1.04	150	2.30	140	7.40	108	8,800	110	26.88	
60	14	55	65	.56	180	1.25	164	3	122	8	69	10,000	128	29	.036744
61	12.5	44	68	.40	210	1	200	2.50	190	6.25	112	9,190	100	30.04	.059623
66	12.5	43	60	.60	190	1.04	180	2.60	200	8	108	10,200	104	30.01	.043316
No. 42 yarn:															
Mill No.—															
5	12	40	58	.57	206	1.25	181	3.30	145	8.50	118	9,000	122	27.50	.050268
38	12	46	80	.45	250	1.25	195	3	182	8	102	9,000	112	26	.040319
42	12	45	69	.50	223	1.25	222	3	155	9.43	98	8,500	90	29.70	.051254



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Cotton Goods in Italy

Extracts from Report of Commercial Agent R. M. Odell

While the standard of living among Italian cotton mill operatives is lower than that prevailing in the United States, it is much higher than 10 years ago. This is due in large measure to the welfare work which the owners of many mills have taken up. It is not unusual to find a cotton mill provided with good bath house, a gymnasium, reading room and clubroom, and, sometimes, a moving picture show, or theater at which a small charge is made. Good schools are a part of the regular equipment.

Mills built in recent years have their own tenements for operatives, which are divided up into suites of two, three and four rooms each. Where the mill owns the houses, rents are usually lower, being about 3 or 4 lire (\$0.57 or \$0.77) per room of 20 square meters (186 square feet) per month. The monthly rent of houses for workers is \$0.77 to \$0.96 per room in Busto Arizio; \$0.96 to \$1.25 in Monza; and \$0.86 to \$1.15 in Lagnano and Breseia.

Separate houses for operatives, which are the rule in the United States, are not usually found in Italy except in the smaller towns where the supply of tenements is insufficient. In such cases the cotton manufacturers have built two and three room cottages which rent for about 40 cents per room per month.

It frequently happens that the employees of Italian cotton mills live at some distance from the factory, and in such cases the owners usually build and maintain boarding houses for the women and girls, who make up such a large proportion of the operatives. Many of these houses are under the supervision of nuns, and they are clean and well kept. Separate beds are provided in a large dormitory, and there are usually recreation rooms and sitting rooms in the building. Good substantial meals are served in a common dining room, and the charge for board and lodging is extremely low, ranging from 8 to 10 cents per day. Boarders usually go to their homes, at some distance from the mill, for the week end.

Variety and Cost of Foodstuffs.

The Italian operative does not have a great variety of food, but what he eats is substantial and nourishing. The diet consists mainly of soup and vegetables; fresh meat is seldom eaten, except on Sundays and holidays. For breakfast, bread and cheese or salami (salt meat) are usually eaten. Dinner is the most important meal, and consists of minestra (thick soup made with macaroni), rice or other vegetables and grated cheese. Green vegetables and fruit are also served. For supper the operative has minestra or polenta (a kind of corn-meal mush), the latter sometimes mixed with chestnuts. Light wine is universally used as a beverage, and a fairly good quality can be purchased at 8 to 10 cents per quart, being cheapest in Piedmont and Tuscany, where it is most plentiful.

By means of co-operative stores, which are numerous in Italy, the operatives are often able to buy their food supplies at prices lower than they would otherwise. These stores have been established in practically all the cotton mill towns in Lombardy and Piedmont, and they play a large part in the life of the working classes.

Trade and Labor Organizations.

The relations between the employers and employees in the Italian cotton mill towns in the spirit of trade-unionism has grown in Italy in recent years, there is no strong organization among the operatives. As a rule the existing unions confine their activities to obtaining shorter hours and better working conditions. There are really two organizations among the textile workers—the Federazione Arti Tessili and the Syndicato Istituzionale Tessili. The former is of a socialistic nature, and in 1910 consisted of 80 sections, or unions, with 9,491 members. The syndicato is a religious organization, and its membership was 6,037 in 1910. The total number of members in both organizations (15,528) is thus rather small as compared with the total number of cotton mill operatives (207,000). However, the total number of adult male operatives, from whom the membership is drawn, is only slightly more than 50,000, and in the strikes of five and six years ago the unanimity of action and the allegiance of the members secured many concessions from the manufacturers and inspired more confidence in the organization.

The welfare work of the mill owners—their interest in the operatives and provisions for the latter's comfort, amusement and pleasure—has done much in the past few years to bring the employer and employee into closer touch and more friendly relations, and it is becoming easier each year to amicably adjust any disputes or differences without resort to strikes.

The manufacturers have not formed any regular organization specifically to deal with the trade-unions, such combinations among them have always been temporary and due to the necessities of the occasion. The only manufacturers' organization is the Associazione Cottoniera Italiana, which has already been mentioned, and which occupies an important place in the industry. The headquarters of the association is in Milan, where the manufacturers meet and discuss their interests, and the problems confronting them. The association is really made up of four sections, devoted, respectively to spinning, weaving, finishing, and raw cotton and the members pay in proportion to the number of their operatives. Each section has a directorate of 3 making 12 directors, for the four sections, to which are added 6 directors selected by the association as a whole. These directors form the governing body of the organization and elect the officers.

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Trend of Industry in Recent Years.

The statement of a prominent cotton manufacturer that there was a loss of 3 cents on every pound of cotton goods sold in Italy last year indicates that the industry here has shared in the world-wide depression also felt so keenly by the manufacturers in the United States. There has been a cessation in the building of mills, except in the south, where the inducements and encouragement offered by the Government, as already mentioned, and the desire of Southern Italy to become industrially independent, have slightly stimulated the building of factories.

While the export trade has grown in recent years, the domestic market is oversupplied, and the stock of yarn and cloth at the end of 1909 was greater than ever before. During 1910 the stocks were decreased owing to the policy of curtailment which was practiced, but practically all the mills are now (October 1911) running full time, and there is no marked increase in the demand for cotton goods.

Italian merchants purchase a large supply of goods at one time and during 1907, 1908 and 1909 they laid in heavy stocks of goods, which they were unable to sell. Poor crops caused a lighter demand for goods and this aggravated the troubles of the mill owners. The crisis became so acute in 1909 that the manufacturers reached an agreement to curtail production 25 per cent, and another plan of short-time running was adopted in December 1910. A number of the mills suffered considerable losses, and the prices of shares declined. Some of the mills failed, while others were forced to liquidate or sell out.

Causes of Depression—Export Trade Policy.

One reason given for the unsatisfactory condition of the industry is that the banks have ceased to offer the liberal credit terms formerly allowed. It was stated that because of the great losses sustained by many manufacturers in 1910 through the bills of lading incident in the United States the banks have drawn a tighter rein on their loans to cotton mills. As Italy is preeminently a country of long credits, it is difficult to carry on business successfully without liberal credit. When the banks refused loans to the spinners the spinners were forced to curtail their credit to the weaving mills or shut down their plants, and the weavers in turn were not able to offer the old-time terms to the dealers. The result was general disturbance in the industry and trade. Some manufacturers seem to think that the falsifying of bills of lading in the United States has worked great harm on the business, aside from the money loss involved, and that the effects will be felt for years.

Another matter of much concern to the Italian manufacturers is the war with Turkey. Exports of cotton goods to European and Asiatic Turkey in 1910 amounted to \$8,500,000, or more than 30 per cent of the total exports of cotton manufactures and the loss of this market would be severely felt.

The fact remains, however, that Italian mills are built and operated on strictly modern lines, embodying all the improvements known to the industry. Economies are attained through the weaving of split goods, the use of cheaper cotton and heavy sizing, an economical system of management has been adopted, labor is perhaps cheaper than it is in other manufacturing countries, an aggressive policy as regards export markets has been inaugurated, and every effort is being made to secure an increasing share of the world's cotton goods trade particularly in South America, the Levant, and quite recently in China. These methods and policies have brought the industry in Italy to the position which it holds to-day, and the exports of cotton goods for the first six months of 1911 were greater than for any previous corresponding period, amounting in value to nearly \$20,000,000.

Prominent Mills.

Statistics of the number of spindles or looms in individual mills are not obtainable, as already mentioned, the mill owners being reticent about giving out figures. There are several directories of the Italian cotton industry, but they give only the names and locations of the factories and a general idea of their products.

Tessuti Stampati.

The Societa Italiana Ernesto de Angelli per Industria dei Tessuti Stampati, which operates mills in Milan, Legnano, Grusimallo, Ponte Nossia and Aglie Saronno, the most important firm in the industry has 1000,000 spindles, 4,300 looms, and 46 printing machines, and employs 7,000 operatives. Originally this firm was engaged in the printing business alone, buying most of its cloth from England. The tariff law of 1887 so successfully stopped the importation of cotton goods that it was necessary to purchase the cloth in Italy. The quality of the home product proving unsatisfactory, the company erected its own weaving mills, and later, in order to secure a better grade of yarn, took up spinning. The company engraves its own copper rollers for printing, and many of them require highly skilled engravers. Block printing is also carried on, especially in the printing of handkerchiefs and head covers, a large quantity of which are produced by its mills. One of the specialties of this firm is printed flannelets and barchani.

Looks Like Prosperity.

According to government statistics, just issued luxuries imported into the United States during the fiscal year, ending with next month will exceed \$200,000,000 in value. How is this for a prosperous people?

Under this term "luxuries," are included such articles as diamonds, art works, laces and embroideries, champagne and other wines, tobacco and manufactures thereof, ostrich feathers, artificial flowers, toys, perfumeries and cosmetics, jewelry, manufactured of gold and silver, and numerous others of this general character.—Exchange.

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Principles of Carding

(Continued from Last Week)

As in the case of spinning and weaving mill, the apportioning of costs as between the different processes of the finishing mills was done by the agents of the board at the offices of the mills and the signature of the mill officers obtained after a careful examination of the extended costs had been made. Before distribution, however, the figures in all instances were checked by the agents with the accounting records of the company to make sure that they represented actual rather than estimated costs.

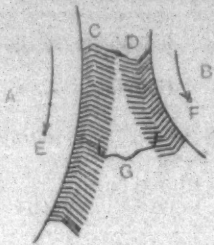


Figure 1

In ascertaining the quantities and amounts paid for the different materials used only such materials as were consumed in the finishing processes were considered and not the quantities purchased during the period covered.

In a few instances it was necessary to analyze the pay roll to ascertain the wages paid in various occupations in the mills, though some of the companies had already made this distribution and in such cases the amounts paid in the several occupations were checked with the total labor cost.

The works expense and fixed charges were arrived at in the same manner as in the spinning and weave mills, which has already been explained. The cost of singeing materials was extended upon a yardage basis after ascertaining the number of yards subjected to this process. In arriving at the proper charge per yard for bleaching materials it was necessary to first ascertain the number of pounds of each kind of cloth bleached. The bleaching materials were computed upon a poundage basis and this amount was divided by the number of yards per pound, thus converting the cost to a yardage basis. In arriving at the cost for bleaching materials, properly chargeable to bits, which are the most objection-

the various cloths, care was taken charge only those materials which were used in bleaching the particular cloth. This will explain, in part, the difference in bleaching costs.

Mercerizing was ascertained upon a yardage basis; that is, the number of yards mercerized was ascertained and this amount divided into the total cost for mercerizing to ascertain the cost per yard for this operation.

The cost of dyestuffs was also ascertained upon a yardage basis, as in the case of mercerizing materials.

The cost of printing materials per yard was more difficult to ascertain, due to the fact that some cloths are printed in one color while others have as many as 8 or 10 different colors. Since printing is sometimes done in a number of colors at one operation, it was necessary to divide the production of the goods printed into classes according to the number of colors, as it is evident that there is a greater cost in printing cloth in seven or eight different colors than there would be in printing one or two colors.

We have tried a number of things these rollers and the cylinder filleting forces the fibres absolutely into the cylinder clothing, and the ends that stick out are mostly those of the comparatively long fibres. When the cylinder comes round to the flats, then they will take these ends of the longer fibres first and card them well, and the short fibres will also be carded, because they cannot keep sinking into the cylinder clothing so far that they are absolutely out of the reach of the flat clothing. The difference comes in when it is considered in which way these short fibres are treated. In the case of the "all-flats" card, most of the short fibres and impurities go immediately into the flat filleting, out of the way of the carding process, from whence they can be easily removed afterwards. In the case of the "mixed card" all the impurities are first worked into the cylinder clothing by the rollers, and they cannot be easily removed from this amount was divided by the number of yards per pound, thus converting the cost to a yardage basis. In arriving at the cost for bleaching materials, properly chargeable to bits, which are the most objection-

able feature in the appearance of yarn. The flat card is specially suitable for avoiding this fault, and here we have therefore the explanation why the flat card gives a much cleaner yarn than any other type, whether "roller-and-clearer" cards or "mixed cards."

During the carding of the fibres between the cylinder and the flats, the fibres are stretched out and disentangled by the fibres losing hold of each other. The fibre tufts are thus separated into single fibres, in which process the "filling" of the various carding parts prevents serviceable fibre going into the waste. To explain, we may mention that the filling is a kind of cushion, on which the fresh or succeeding layers of fibre are laid. The longer fibres project outwards in many places, perhaps at the ends, or at the ends and in the middle, or similarly, due to the peculiar structure of the cotton fibre, and due to its natural convolutions. All these are of course points which can be held or laid hold of by the opposite carding parts. This shows clearly the importance of the "filling" for good carding. Of course, if there is too much filling, then the cushioning effect cannot take place, and the fibres are laid on a comparatively stiff surface, with the result that they cannot be held or retained by the teeth of the wire. The fibres cannot therefore be drawn between the points of the card clothing, which is a very necessary feature of carding.

We may now consider what the "filling" really is. As we have seen above, the fibres are not presented singly to the cylinder by the licker-in, but rather in the shape of small tufts containing a greater or less number of fibres of all lengths mixed with a certain amount of impurities. These tufts, no doubt, undergo a comparatively severe action between the first flats and the cylinder. The fibre tuft will be disentangled by the flats taking hold of part of the short as well as of the long fibres, and the cylinder will hold the tuft chiefly by the longer fibres, especially if clean flats are presented at the first point of contact, and when the cylinder clothing already contains some filling. If the shorter material sinks at once into

the flat clothing, as explained above, and if this clothing requires also most of the leaf, etc.; this undesirable matter will be out of reach of the cylinder clothing, and go to make up the filling of the flats.

This preliminary explanation allows us also to develop the theory of carding. There are three cases possible in the flat card, which may be described as follows:—

1. The cylinder has just been stripped of its "filling." In that case a good proportion of fairly long fibres sinks into the cylinder filleting along with short fibres and foreign matter, and many of these long fibres will even go into the cylinder strips later on, although in comparatively insignificant quantities as compared with the flat waste. The actual result is much influenced by the system of flats—whether they move in or against the direction of the main cylinder, or whether they are stationary.

2. As the cylinder clothing gradually accumulates some "filling," the fibres freshly fed cannot penetrate so far to the bottom of the wires, and it follows that only the short fibres are retained in the ground of the cylinder filleting, as the others stick out far enough to be taken forward again by the cylinder. At the same time, some of the motes, leaf, etc., are pressed into the filleting by the action of the flats; this quantity of impurities being insignificant, however, because the heel of the flats prevents any such tendency to a great measure. Those motes which are actually pressed into the cylinder filleting will remain in it, because they do not stick out, and at any rate the opposite flat filleting, having relatively the same action, cannot clear them out so that by this fact their being ground up is prevented. Consequently, there is only a remote possibility of the yarn being spoiled by broken-up stems and leaves at this point.

3. After the cylinder filleting has accumulated a certain amount of "filling" of short leaves, etc., its retentive capacity decreases so much that it cannot any more retain the fibres sufficiently well to comb them out against the flats—i. e., to "card" them. The absence of

(Continued on Page 18.)

W. H. BIGELOW

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DISCUSSIONS BY PRACTICAL MEN

Fast Dyeing With Direct Dyes.

Editor:

This is a day of demand for fast dyes that will be absolutely fast to both washing and light.

In order to meet the demand many mills are using expensive dyes but I have recently heard of a method which is being used by several Northern mills. They are dyeing with ordinary direct dyes but using a very heavy per cent.

After the dyeing the cotton or yarn is washed away with hot soda ash and the color that is left will stand any washing that can be given by a laundry.

Fast colors obtained in this way are, of course, not as brilliant as those obtained from special fast dyes but where brightness is not a special feature they have proved satisfactory.

Weaver.

Answer To Young Carder.

Editor:

Last week "Young Carder" asked a question as to why the flats travel from the back to the front of a card.

I do not know any reason except that if the flats were cleaned at the back the dirt from the card strips would fall on the laps.

The object of having the flats to revolve is not for any carding purpose but is for the purpose of bringing them out in order to clean them.

The relative speed of the flats to the cylinder is so small that they

can be stopped without any damage to our gans upon which they fill up with fibers and dirt.

They can also be reversed and I believe they will do just as good carding that way. Many carders on low grade stock speed up the flats because they become choked by filling up too fast which is helped by bringing them out oftener.

Many efforts have been made to devise a method of cleaning the flats at midway points along the bend but none have been practical.

R. D. L.

Electricity in Card Room.

Editor:

I notice the question of "New Mill" relative to electricity on cards and will say that proper humidity is the only solution of his trouble and if he will get his humidifiers to work right the electricity will disappear.

Dry air and electricity go hand in hand. One is seldom present without the other. The effect of dry air and electricity on the cotton fibre is exactly the reverse of moisture. The fibres seem to repel each other and with electricity it will become a hairy thread, deficient in strength and very undesirable, especially in warp. It may be safely laid down as a rule that the amount of electricity in the air is in inverse proportion to the humidity and it is essential to the quality of the work that every department be properly humidified.

Some mill men do not consider humidity in the card room to be of

much importance because its effects are not as easily seen as in the spinning or weaving room but the waste caused by lack of humidity is greatest in the card room.

Humid.

Cotton Yarn Dying.

This article treats on aniline black for cotton skein yarns, and also on long chain warps. In the case of the former, the yarn is usually boiled in the kier, and it is then bottomed with a developed black. The same is used for warp chains. The dying is done in lots of 100 pounds each, with the developed black bottom; washed, and then hydro-extracted. The yarn is then put on the sticks and dyed in aniline dye bath, which for 100-pound lots can be prepared as follows:

Ten pounds bi-chromate of potash; ten pounds of vitriol, and ten pounds aniline salt. The yarn is worked in this bath cold for one and a half hours, the liquor being afterwards run off, and the yarn allowed to hang on the sticks over night. The next morning the yarn is given a cold washing, and is then soured at 130-F., with eight pounds Glauber's salt and six or eight pounds of vitriol. The yarn is given five turns in this solution, followed by three cold washes, and then two warm washes at 130-F., after the yarn is extracted and dried in the drying room, where the air should be changed several times during the drying process.

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J. H. Arrington.....Spinner
R. F. Goodroe.....Master Mechanic

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J. W. Long.....Carder
W. L. Bumgarner.....Spinner
W. L. Fennell.....Master Mechanic

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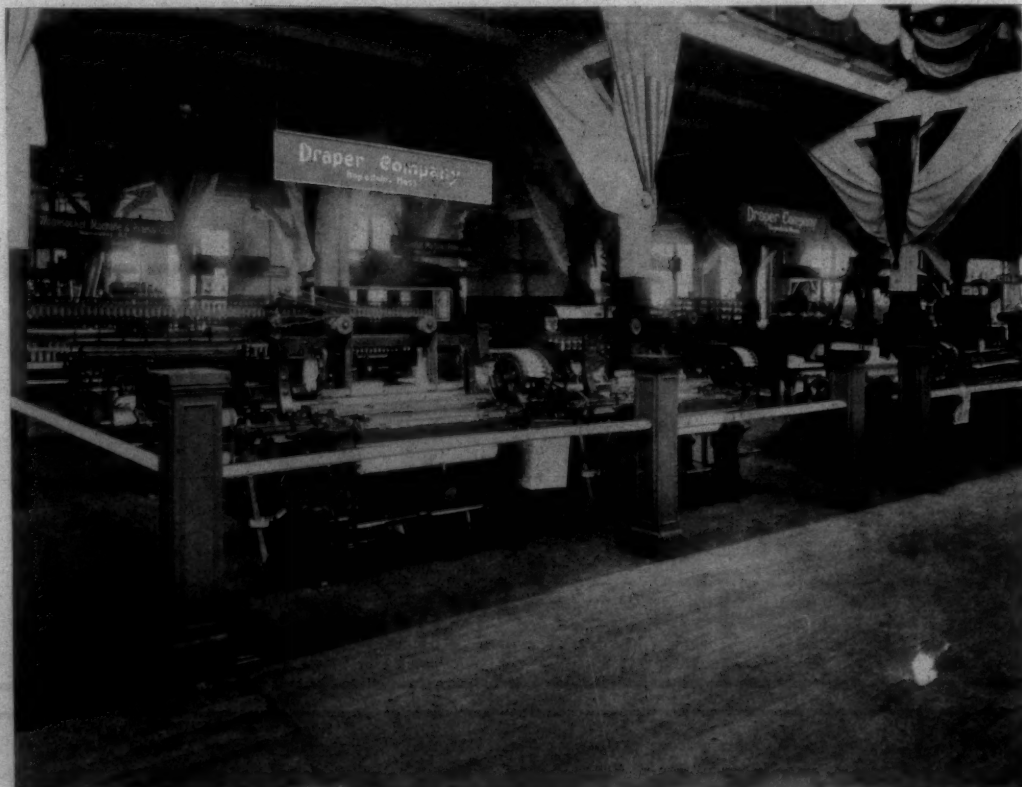
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THURSDAY, MAY 23

Tariff Board Statistics.

On pages 3 and 4 of this issue we are publishing a portion of the data compiled by the Tariff Board relative to the cost of manufacturing cotton yarns. These figures were taken from some of the best mills in this country and not only show the costs but also give the organizations of those mills.

We have just learned that the report is exhausted and we therefore advise our readers to preserve these tables as they are published for their future issue of the Tariff Board Report will be valuable for future reference.

The table published in this issue will be followed by others giving the cost of yarn manufacturing in England and later by those giving the costs of plain goods both in this country and in England.

If there are any questions that can be raised by our readers relative to the correctness of the figures given, we will be very glad to have same discussed through our columns. The Tariff Board claim that their statistics and conclusions are accurate and unless they are shown to be otherwise they will have much bearing on the tariff revision.

The Tariff Board Report.

The Tariff Board, which seems destined to go out of existence on June 30th, due to the refusal of Congress to renew its appropriation, has published reports on three Tariff schedules as follows:

Schedule M.—Pulp and Paper.

Schedule K.—Wool, and Manufactures of.

Schedule I.—Cotton Manufactures.

The cotton report is the third and most carefully prepared report yet issued. Taken altogether it is the greatest compilation of textile costs that has ever been presented to the public. The Board obtained book figures in complete detail from 67 weaving mill (most of which included spinning also), 7 finishing mills devoted to the bleaching, printing, and dyeing of cotton cloth, as well as 4 yarn and 3 thread mills on which to base its finding and unless its work can be proved inaccurate which is doubtful, the data will have much effect upon future tariff revision.

From England there was obtained book figures in complete detail for eight spinning mills embracing over three-quarters of a million spindles,

and in addition considerable data on 20 to 28 automatic looms. Less than one per cent of English looms are

The cotton report contains a great deal of inside information that is of value to the manufacturer, irrespective of the tariff side of it, and every mill man should write his representative in Congress for a copy. The edition is only 5,000 and is being rapidly exhausted.

The report is printed in two volumes of a total of 841 pages. Volume 1 contains the glossary with statistics and discussions of tariff paragraphs. Volume 2 contains the real report with the original cost data.

The conclusions of the Board seem to be based largely on 100 cloths of which samples were secured from the leading jobbers of New York, Chicago and St. Louis as representative of the present cotton cloth distribution in this country. Books of these cloth samples were presented to Congress with the report and these have been photographed and included in Volume 2. Tables show the grey and the finished construction of these 100 cloths, the mill cost in the grey, the finishing cost, the mill price, the jobbing price, the retail price also the corresponding prices in England; the duties on such cloths in the United States, Germany and Canada, etc.

Some salient findings of the Board are as follows:

The first cost of a ring spinning mill in the U. S. is \$10.85 a spindle, in England \$7.92 a spindle. The first cost of a weave shed in the U. S. is \$243.70 per loom, in England \$176.87, using plain looms. The first cost of a combined spinning and weaving mill in the United States is \$17.45 a spindle, in England \$12.72. These figures show a much smaller difference in cost than was generally supposed.

In the case of ordinary grey yarns the English conversion cost—that is, the cost of turning cotton into yarn (not considering the cotton and waste)—is 70 per cent of the American. The purchase price of the raw material is about the same but owing to conditioning the yarn after spinning in England the English cost of cotton in the yarn will be less than the American. In the case of the two lowest cost mills, starting with the same purchased price, the cost of the cotton yarn was 108.849 per cent of the purchase price in the case of the English mill and 111.235 per cent of the purchase price in the case of the American mill.

English weavers never run over 4 looms on plain cloths while American weavers run 8 plain looms or

20 to 28 automatic looms. Less than one per cent of English looms are automatics while one-third of all American looms are automatic. Due to the larger number of looms per weaver, even though operated slower than the English, the American weaver makes more per week but costs his mill less per yard than the English so that on most plain cloths to be made in bulk the American mill turns out the cloth fully as cheaply as the English and are in position to compete in the markets of the world.

Due to the higher expenses of distribution, cloth costs the consumer much more in the United States than in England even where the American manufacturer gets no more or even less than the English manufacturer. The English jobber adds to the mill price 10 to 15 per cent to cover his expenses and profits and the retailer adds to his purchase price 25 to 33 per cent. The American jobber figures on about 25 per cent and the retailer 50 per cent respectively for expenses and profits above their purchase prices. Cotton cloth is retailed in the United States at 5, 6, 8 1-3, 10, 12 1-2, 15, 18, 25, 29, 35 and 50 cents a yard and very rarely at any intermediate prices. The result of this system of fixed steps thus arbitrarily fixed is that consumers frequently pay much more for goods than is justified by the price obtained by the mill. As a rule the American consumer pays something like 100 per cent above the American mill price while the English consumer pays only about 66 2-3 per cent above the English mill price.

Portions of the report that are of the most interest to the trade will be printed in this journal and this week we are publishing a part of the report which refers to yarn costs.

Georgia Industrial Association.

The twelfth annual meeting of the Georgia Industrial Association will be held at Warm Springs on June 11th and 12th. The membership of the association comprises the majority of cotton mills of Georgia. A committee especially chosen for the purpose is endeavoring to arrange a program that will be interesting and instructive, and a good attendance of the members and their friends is expected. Among other things, some good speeches may be expected as the committee on arrangements is out after "big game" in the speaking line. The round of business will be enlivened by other entertaining features.

PERSONAL NEWS

J. D. Whitmire has resigned as overseer of weaving at Seneca, S. C.

W. P. Hurt, of Concord, N. C., is now traveling for a jewelry firm.

H. E. Dill is now fixing looms at the Poe Mills, Greenville, S. C.

Charlie Cox, from Indianapolis, Ind., is second hand in spinning at the Lincoln Mills, Evansville, Ind.

H. L. Austin, from Greenville, S. C., is now fixing looms at the Greer (S. C.) Mfg. Co.

B. G. Hall has resigned his position with the Fort Valley (Ga.) Cotton Mills.

Will Dampier has moved from Georgia and returned to the Columbia (S. C.) Duck Mills.

W. C. Cheek is now overseer of weaving at the Eno Mills, Hillsboro, N. C.

J. E. Carter has resigned as overseer of weaving at the Eno Mills, Hillsboro, N. C.

T. J. Clark has been promoted to head loom fixer at the Franklin Mfg. Co., Greer, S. C.

J. J. Ward has resigned as superintendent of the Warren Mfg. Co., Warrenville, S. C.

John W. Trigg has resigned as overseer of weaving at the Erwin Mills, Duke, N. C.

W. R. Brown has returned to his former position as master mechanic at the Clinton (S. C.) Cotton Mills.

W. E. Baggot, of Huntsville, Ala., is now second overseer of carding at the Lincoln Mills, Evansville, Ind.

M. C. Langley has re-accepted his old position as second hand in carding at the Springfield Mill, Laurel Hill, N. C.

J. C. Hill has been promoted from head loom fixer to second hand in weaving at the Alice Mills, Easley, S. C.

F. Roberts has resigned as overseer of twisting and spooling at the Cleghorn Mills, Rutherfordton, N. C.

J. L. Smith has resigned as second hand in spinning at the Avondale Mills, Birmingham, Ala.

J. M. Cathcart, secretary of the Anderson (S. C.) Cotton Mills, is a candidate for alderman of his town.

John M. Wilson has resigned his position as master mechanic at the Clinton (S. C.) Cotton Mills.

J. W. Willis has resigned his position at the Bamberg (S. C.) Cotton Mill.

B. L. Poe, from Knoxville, Tenn., is now fixing looms at the Poe Mills, Greenville, S. C.

W. F. Petit has been promoted from section hand in spinning at the Poe Mills, Greenville, S. C.

Marcus Deason has accepted position as overseer of spinning and winding at the Marble City Mills, Sylacauga, Ala.

George Davis has resigned as loom fixer at the Dan River Mills, Danville, Va., and is now fixing looms at the Alta Vista (Va.) Cotton Mills.

J. L. Burrell, of Greenwood, S. C., has accepted position as overseer of cloth room at the Abbeville (S. C.) Cotton Mills.

Joe Crain has been promoted from section hand to second hand in spinning at the Elizabeth City (N. C.) Cotton Mills.

T. N. Craig has resigned his position at the Trion (Ga.) Mfg. Co., and accepted position at the Massachusetts Mills, Lindale, Ga.

Frank Hinson is now filling position as second hand in spinning at the Holston Cotton Mills, Lenoir, City, Tenn.

J. F. Ingle, of Rhodhiss, N. C., has accepted the position of master mechanic at the South Texas Cotton Mills, Brenham, Texas.

CARDS,
DRAWING,

COTTON
MILL MACHINERY

SPINNING
FRAMES,

MASON MACHINE WORKS

TAUNTON, MASS.

EDWIN HOWARD, Southern Agent
Charlotte, N. C.

COMBERS,
LAP MACHINES

MULES,
LOOMS.

A. L. Quantz has been promoted from overseer of weaving to superintendent of the Arcade Mills, Rock Hill, S. C.

E. F. Doster, of Green River, N. C., has accepted position as night overseer of carding and spinning at the Brevard (N. C.) Cotton Mills.

D. B. Murray, of Duke, N. C., has accepted position as overseer of spinning and winding at the Ivanhoe Mills, Smithfield, N. C.

Shackleford has resigned as master mechanic and chief engineer at the Simpsonville (S. C.) Cotton Mills.

M. Corbin, of the Southern Power Co., has accepted the position of engineer at the Seneca (S. C.) Cotton Mills.

David Harriman, Jr., has resigned as overseer of carding at the Clinton (S. C.) Cotton Mills to accept a similar position at Tallassee, Ala.

J. E. Shaw, from Rockingham, N. C., is now overseer of carding at the Clifton (S. C.) Cotton Mills Nos. 1 and 2.

D. B. Mehaffey has resigned his position with the Travora Mills, Yorkville, S. C., to become overseer of spinning at the Lancaster (S. C.) Cotton Mills.

W. P. Hawkins has resigned as second hand in spinning at the Dixie Mill (Mooresville, N. C.), and accepted position at the Vance Mill, Salisbury, N. C.

W. E. Ford has resigned as overseer of spinning and winding at the Marble City Mills, Sylacauga, Ala., and accepted position as second hand in spinning at the Avondale Mills, Birmingham, Ala.

Will Wilson, from the Victory Mfg. Co., Fayetteville, N. C., is now machinist at the Chadwick-Hoskins Mill No. 3, Charlotte, N. C.

Harry Haulters has been promoted from section hand to second hand in spinning at the Floyd Cotton Mills, Rome, Ga.

L. V. Lyda has resigned as loom fixer at the Franklin Mills, Greers, S. C., and accepted similar position with the Greer Mfg. Co., of the same place.

G. W. Brigman, of Raeford, N. C., has accepted the position of overseer of spinning and assistant superintendent of the Maple Mills, Dillon, S. C.

John L. Davidson has resigned as superintendent of the Stonewall (Miss.) Cotton Mills to become general superintendent of the Georgia Mfg. Co., Griffin, Ga.

Jim Gorman, formerly loom fixer at the Verlina Mills, Jacksonville, Ala., has accepted position as overseer of twisting at the Ide Mills, of the same place.

W. E. Stafford has resigned as superintendent of the Arcade Mills, Rock Hill, S. C., to become superintendent of the Elmira Mills, Burlington, N. C.

A. T. Brown has resigned as superintendent of the Aragon Mills, Rock Hill, S. C., to become superintendent of the Warren Mfg. Co., Warrenville, S. C.

John Tillett, of Charlotte, N. C., has resigned his position at the Union Bagging Co., Norfolk, Va., and accepts position as shipping clerk at the Chadwick-Hoskins Co., Charlotte, N. C.

OVERFLOW PERSONALS PAGE 16



CAPACITY 1000 POUNDS LINT PER HOUR.

Do You Dye Raw Stock?

Why not clean, open and fill the fibres with air before you dye the cotton. It saves you money and insures much better results : : : : :

BECAUSE

The C. O. B. Machine gives you these results in one operation.

MANUFACTURED BY

EMPIRE DUPLEX GIN COMPANY, 68 William St., New York

Southern Representative

ATLANTA EQUIPMENT CO., Atlanta, Ga.

MILL NEWS ITEMS OF INTEREST

Lancaster, S. C.—One of the mill tenements was destroyed by fire on Monday. The loss was small.

Baltimore, Md.—The Mt. Vernon Knitting Mill has placed contracts for five knitters and one looper.

Spray, N. C.—The Rhode Island Mills have placed an order for Turbo Humidifiers with the G. M. Parks Co., of Fitchburg, Mass.

McColl, S. C.—The Marlboro Cotton Mills are adding some additional spinning room machinery in mill No. 1.

Mayesworth, N. C.—The Mayes Mfg. Co. are erecting a stand pipe which they recently purchased from the town of Gaffney, S. C.

Lumberton, N. C.—Dividends of 5 per cent and 2 per cent, respectively, have been declared by directors of the Lumberton and Dresden Cotton Mills.

Anderson, S. C.—The Gluck Mills have placed an order with the Empire Duplex Gin Co. for a C. O. B. machine to improve the method of opening their cotton.

LaFayette, Ga.—It is reported here that the LaFayette Cotton Mills will add extensively to their present equipment. Details of the enlargement have not yet been announced.

Rock Hill, S. C.—The Harris Cotton Mills have awarded contract to Leve Owens, of this place, for the erection of eight new buildings. The cost of the houses will approximate \$5,500.

Rutherfordton, N. C.—The Cleg-horn Mills Company is adding a second story to the new addition recently built, which will make room for additional machinery and equipment.

Birmingham, Ala.—It is reported here that B. B. Comer and associates are planning the construction of a cotton mill, the cost of which will be about \$50,000. Details have not yet been announced.

Ilchester, Md.—The Thistle Mills are installing a number of new looms. They are also making preparation for installing the electric drive for operating the plant. The output of this concern is duck, and about 200 operatives are employed.

Concord, N. C.—The Louise Manufacturing Company, recently mentioned as being incorporated, will erect a brick building, 75x160 feet, costing \$8,000. There will be installed in this building 20,000 spindles, driven by electric and water power. The machinery is to cost \$15,000 and all of the contracts have been awarded.

Rock Hill, S. C.—Highland Park Mills are building a tank to hold 50,000 gallons of water, as an additional measure of fire protection, connecting with the sprinkler system. The iron work of the tower is now going up.

Henderson, N. C.—It is stated here that D. Y. Cooper will erect a two-story building and install 10,000 to 15,000 spindles and accompanying machinery. Details of construction and general plans of the new enterprise have not been made public.

Greenwood, S. C.—One of the cottages at the Greenwood Cotton Mills was destroyed by fire Wednesday morning. The fire department responded to the call but it was impossible to extinguish the flames. Several nearby buildings were saved.

Cheraw, S. C.—It is understood that the project for a cotton mill at this place has taken definite shape and it is reported that most of the funds have been subscribed.

Greenville, S. C.—A meeting of the stockholders of the Monaghan Mills has been called for June 13th, for the purpose of considering a resolution adopted by the Board of Directors May 9th to increase the capital stock of this corporation from \$1,050,000 to not exceeding \$4,000,000.

Shawmut, Ala.—The West Point Manufacturing Company will add 5,000 spindles and accompanying machinery to their present equipment of 25,000 ring spindles and 268 looms, etc., on the production of cotton duck. The contracts have already been awarded for this new machinery.

Abbeville, S. C.—Seth M. Milliken and party were in Abbeville May 17 for a directors' meeting of the Abbeville Cotton Mill. A dividend of 3 per cent, amounting to \$9,500 was declared on the common stock payable July 1. Besides paying this 3 per cent dividend, \$125,000 worth of first preferred stock was ordered called in and paid on July 1, the regular dividend period.

Durham, N. C.—Special. At a regular meeting of the Durham Merchants' Association last week President Vaughan stated that the matter of the new addition to the Durham hosiery mill had been taken up with J. S. Carr, Jr., the president of the mill, and that Mr. Carr had stated that the plans were being drawn. Just where the new mill will be located has not as yet been given out, although they are thinking of erecting it back of the Durham hosiery mill.

Durham, N. C.—The Durham Hosiery Mills have announced their intention to erect the new \$100,000 plant in this city. It was reported last week that the company was thinking of locating the new mill in Durham, but at that time no decision had been made. It is understood that the construction of plant is to begin at once. Details of the plans and equipment of the proposed mill have not yet been announced, though it is understood that this new enterprise will represent an investment of approximately \$100,000.

Atlanta, Ga.—The Exposition Cotton mills have placed an order with the Howard and Bullough Company for 16,000 spindles, new spinning frames, eighteen new speeders, intermediates and slubbers, eight cards, etc. It is probable that an order for two hundred or more looms will be placed at an early date. This company is making general improvements, and having their entire plant overhauled. An additional number of operatives will be required when the new machinery is started up.

Drayton, S. C.—The stockholders of the Drayton Mills met last week at the office of the company. The affairs of the company were found to be in satisfactory condition, though no dividend was declared.

The retiring board of directors was re-elected in its entirety, as follows: S. M. Milliken, V. M. Montgomery, J. B. Cleveland, J. F. Floyd, F. J. Hale, (of Newton Upper Falls, Mass.) W. J. Britton and Arch B. Calvert.

Arch B. Calvert was re-elected president and treasurer, and Gabriel Rouquie as secretary.

Greenville, S. C.—At a meeting of the board of directors of the Carolina Mills held last Tuesday a resolution was adopted calling a meeting of the stockholders on June 18th, for the purpose of considering a resolution adopted by the directors providing for the increase of the capital stock from \$150,000 common and \$50,000 preferred to \$300,000 common and \$300,000 preferred.

The meeting will be held at 1 o'clock, Tuesday, June 18th, at the offices of the company. The proposed increase in the capital stock of the concerns is to be divided into shares of the par value of \$100 each. The preferred stock is to be 7 per cent cumulative preferred, running for ten years and to be retired at the expiration of that time at \$140 per share.

It is reported that the Carolina Mills will be doubled in size.

Greenville, S. C.—W. J. McDowell, manager of construction for the Clifton Mfg. Co. has a squad of carpenters at Converse re-roofing some of the dwellings.

Chapel Hill, N. C.—The Durham Hosiery Mills, in addition to the recently mentioned enlargement to their plant will also erect several tenement houses for the many employees the enlargement at the plant will make necessary. Besides these a large flat will be erected for those who wish to board. The local mill now measures 240 feet and with the new addition will be 370 feet long. The mill now employs more than 150 hands and will increase this number to over 200 when the enlargements are completed.

Prattville, Ala.—The Prattville Cotton Mills have awarded contract to Algeron Blair, of Montgomery, Ala., to construct an extension to their mill. The new addition will be 58 by 48 feet, brick construction with concrete floor and will contain cloth room and office. The company has also awarded contract to Mr. Blair to erect a standard cotton warehouse, having three compartments, each compartment to be 50 by 100 feet with contract floors. The total cost of the improvements will be about \$15,000. Construction has already begun.

Chattanooga, Tenn.—Philadelphia capitalists, owners of a number of cotton mills in the South and also in the Fall River district, have closed a deal whereby they will erect a \$100,000 plan in Chattanooga. The plant to be erected here will be the only one of its kind in the South, although there are more than a hundred in the factory districts of New England.

The Chattanooga plant will convert cotton yarns, such as unfinished domestics, etc., into mercerized cloths and attractive designs. For reasons of their own, the capitalists do not wish their names published. A site for the plant has been bought in the Ridgedale suburb. The promoters say work is to be commenced at once. The payroll will approximate \$30,000 to \$60,000 a month.

Pacolet, S. C.—The annual meeting of the stockholders of the Pacolet Manufacturing Company was held in the office of the president, Victor M. Montgomery. The directors were re-elected as follows: S. M. Milliken, R. K. Waring, Frank E. Taylor, R. K. Carson, A. L. White, W. S. Montgomery and V. M. Montgomery. V. M. Montgomery was re-elected president and treasurer, and B. W. Montgomery, assistant treasurer.

Good reports were presented to the directors, and they decided to pay to the common stockholders, on June 30, a dividend of three per cent., in addition to the regular semi-annual dividends of three and one-half per cent. on the preferred stock. Prior to yesterday's meeting three successive dividends on the common stock had been passed.

Owing to the low prices of cotton

last autumn the Pacolet mills; which manufacture coarse goods and consume large quantities of cotton were able to do a fine business and for a while, on account of the low price, enjoyed a good China trade.

Lockhart, S. C. — The stockholders of Lockhart mills held a special meeting in the office of J. B. Cleveland to consider a proposition for water power development. They passed a resolution giving the directors authority to act on the proposition. The directors then held a meeting and discussed the project but took no definite action in regard thereto.

Engineers who have investigated the matter thoroughly reported to the Lockhart mills directors that there is \$100,000 worth of water-power going to waste on or near the company's property every year. It is now being proposed to conserve this power by building a 16-foot dam on the upper shoal of the company's property along the Broad river in Union county.

The Southern Power company has made a tentative offer to purchase from Lockhart mills all the surplus power which the Lockhart people do not need for the operation of their plants.

In order to take advantage of a law passed by the legislature the acquisition by power companies through condemnation, of land upon which water overflows, it is expected that the directors of the Lockhart mills will form a power company to make the development contemplated.

Mill and Machinery Exhibits at Manufacturers Exposition.

One of the features of the Manufacturers Exposition, held in Charlotte, N. C., during this week, was the exhibits by the cotton mills and the textile machinery manufacturers of Charlotte. These exhibits were attractively arranged and presented many interesting and instructive points to the visitors. A number of these are detailed below:

American Machine Manufacturing Co.

This company had on exhibit the McDonald-Miller system of mixing, opening and cleaning cotton. They also showed a line of size kettles, banding machines, warp beaming machines and the Post Indicator for fire protection.

Loom Reeds and Harness Co.

The products of this concern are reeds and beaming combs and a most complete line of these were attractively displayed, showing reeds ranging from the very coarse to those for fine weaving.

Charlotte Cordage Co.

A braider in operation, making braided sash cord was on exhibit



No Shadows

One of the objections to humidifiers is the overhead piping which—especially in saw-tooth roofs—casts disagreeable shadows.

THE TURBO HUMIDIFIER

has as a possible ramification its ring construction; the rings are around the posts and the piping all underneath, out of the way. No shadows with the Turbo Ring Construction. This may seem a minor detail, but it is one of the Turbo points that leads toward satisfied customers.

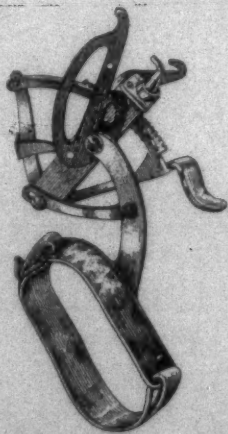
Get Turbofied—and satisfied.

THE G. M. PARKS CO.
FITCHBURG, MASS.

Southern Office, No. 1 Trust Bldg., Charlotte, N. C.
B. S. COTTRELL, Manager

The Byrd Knotter

Price \$20.00



Simple of Operation

Durability Guaranteed

Small Repair Cost

Byrd Manufacturing Co.

DURHAM, N. C.

at this booth, showing the cord braided from the yarn. This exhibit also showed the various products of the company, including sash cord, clothes line, white and variegated twine, etc., all of which are made from yarn manufactured by the company.

Reddisode Textile Company.

This company had a very attractive display of mattresses, showing them as they are put through the various processes of manufacture.

Chadwick Hoskins Manufacturing Co.

This company showed a loom in operation, weaving fine sheetings. They also had on exhibition a large number of samples of fine sheeting, the product of the mills of the company.

Elizabeth Mills.

These mills had a most tastefully arranged exhibit, showing a large variety of fine carded and combed yarns, ranging in count from 50s to 150s, both single and ply. These yarns were shown in both the white and colored.

Highland Park Manufacturing Co.

A large display of staple and fancy ginghams, chambrays, etc., was shown by this company.

Charlotte Manufacturing Co.

One of the most interesting exhibits was that of the Charlotte Manufacturing Company, showing the manufacture of card clothing. This concern is the only one in the South which manufactures card clothing. They also showed reeds of their own manufacture.

Southern Spindle and Flyer Co.

Occupying a large space and being well arranged, the exhibit of the Southern Spindle and Flyer Co. was one of the most attractive at the Exposition. They showed complete line of steel rolls, pressers, card room spindles, top rolls, lifting rods, etc. In operation were shown flyers, pressers and steel rolls.

General Fire Extinguisher Co.

This concern had on exhibit the Grinnell Sprinklers, the auxiliary piping, etc., which is manufactured in Charlotte, was shown with the other products of this company.

Cotton Prices Since 1820.

John Hill, the well known machinery agent of Atlanta, Ga., has issued a very handsome picture which is not only an office ornament but also gives the high and low prices for cotton for every year since 1820. It also gives the size of the crop for each year.

Mr. Hill also sends with the picture a map of the cotton belt showing the spread of the boll weevil.

AMERICAN MOISTENING COMPANY

BOSTON, MASSACHUSETTS

WILLIAM FIRTH President

FRANK B. COMINS, Vice-Pres. & Treas.

THE ONLY PERFECT SYSTEM OF AIR MOISTENING
COMINS SECTIONAL HUMIDIFIER

JOHN HILL Southern Representative, Third Nat. Bank Building, ATLANTA GEORGIA

Cotton Goods Report

New York. — The market closed with a slight improvement during the last two days of the week, owing to more seasonable weather conditions.

Jobbers were inclined to be a little more cheerful, and hope that during the last part of this month retailers will get a chance to move some of their spring and early summer merchandise. A moderate amount of mail orders came through on Saturday, showing that in certain sections of the country the demand across retail counters has been slowly improving. In the East however, the volume of business for the week was decidedly small. Some of the larger retail buyers have been keeping their eyes open for any special offerings in jobbing houses, as they have faith in a good summer trade, once it starts up and are prepared to pick up anything that can be used later on for bargain day sales, or special "drives." Reports were current on Saturday to the effect that some offers had been made for stocks of cotton wash dress fabrics in jobbers' hands, and that these offers were now under consideration. With first hands the week has been a very quiet one, so far as new business was concerned. Buyers continued to call for goods on old order, including brown and bleached sheetings, drills, denims, and lines of prints, gingham, etc., still to come forward. Cotton yarns remained very quiet, but firmly held during the week, with buyers slowly beginning to realize that spinners do not intend to shade their asking prices to any extent. Underwear and hosiery showed little signs of activity, as retailers are more anxious to move the goods they already have on their shelves, than they are to place further orders. Summer silks have also been in slow request, while the distribution of linens across retail counters, especially in this city, and its immediate vicinity, has been greatly restricted by the weather.

There was a further falling off in the volume of trading in the Fall River print cloth market last week. Buyers generally showed little interest in the trade and there was very little inquiry for goods. The market was very quiet throughout the week and the total sales for the week set a new low record for the year. It was the fourth consecutive week that the total sales fell short of the mark of the previous week.

The dull condition of the market has had its effect on prices, and styles figuring in the trading have shown a reduction of a sixteenth of a cent from the previous week. No strong efforts was made, however, to obtain further concessions, and on the whole there was a decided lack of interest on the part of the buyers.

The total number of sales is estimated at 60,000 pieces, half of them being spots. Trading was all in small lots, with sales ahead for de-

liery as far along as the end of July.

Quotations are as follows: 28 inch, 4x60s, 3 7-8 cents; 28 inch, 64x60s, 3 3-4 cents; nominal; 27 inch, 64x60s, 3 5-8 cents; 27 inch, 56x56s, 3 1-8 cents; 27 inch, 56x52s, 3 cents; 38 1-2 inch, 64x64s, 5 1-8 cents; 39 inch, 68x72s, 5 3-4 cents.

Current prices on cotton goods were quoted in New York as follows:

Prt. elths, 28-in, std.	3 15-16	—
28-in, 64x60s.	3 3-4	—
4-yard, 80x80.	6 1-2 to 6 3-4	—
38 1-2 in. std.	5	5 1-8
Gray goods, 39-in, 68		
x72	5 1-2 to 5 5-8	—
Brown drills, std.	8	—
Sheetings, so., std	7 3-4 to 8	—
3-yard	7	—
4-yard	6 1-2	—
Denims, 9-ounce	13	to 16 1-2
Stark, 8-oz. duck	12 1-3	—
Hartford, 11-ounce,		
40 inch duck	14 1-2	—
Tickings, 8-ounce.	13	—
Stand. fancy prints	5 1-4	—
Stand. gingham	6 1-4	—
Fine dress gingham	7	to 9 1-4
Kid fin. cambrics	4 1-4 to 4 1-2	—

Weekly Visible Supply of American Cotton.

May 18, 1912	3,316,790
Preious week	3,500,730
Last year	2,045,991

Weekly Cotton Statistics.

New York, May 17.—The following statistics on the movement of cotton for the week ending Friday, May 17, were compiled by the New York cotton exchange:

WEEKLY MOVEMENT.

	This yr.	Last yr.
Port receipts	50,754	65,408
Overland to mills and Canada	10,142	12,188
So. mill takings (estimated)	30,000	25,000
Loss of stock at interior	18,190	33,926

Brought into sight

TOTAL CROP MOVEMENT.

Port receipts	11,523,593	8,383,055
Overland to mills		
Overland to mills and Canada	931,042	914,272
So. mill takings estimated	2,410,000	2,010,000
Stock at interior towns in excess of Sept. 1	131,096	164,277

Brought into sight

thus far for the season 14,995,731 11,471,604
Six hundred and fifty bales added to receipts for the season.

A Georgia man whose wife swallowed poison through mistake sat down and hastily wrote the following message to the doctor:

"Dear Doctor: My wife is at the door of death. Please come at once and see if you can pull her through."—Exchange.

GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

SELLING AGENTS

BROWN AND BLEACHED COTTON GOODS FOR HOME EXPORT MARKETS



Independence is our motto, and we have no connection with any other Ring Traveler Company.

U. S. RING TRAVELER CO.

AMOS M. BOWEN, Treas.

PROVIDENCE, R. I.

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President

JOHN W. TODD
Vice-President and Secretary

The Desirability of the South

as the place to manufacture cotton goods is illustrated in the increase of 67% quoted by census department. We can offer attractive situations for those desiring to enter this field.

J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.

The Logical Location for Textile Mills

The three absolutely necessary commodities for operating successfully a textile mill are POWER, RAW MATERIAL and LABOR.

If your mill is located in a Southeastern State on one of the many CHEAP WATER POWERS which abound in that locality—where cotton is delivered at your factory doors by growers—where intelligent LABOR IS PLENTIFUL and living expenses low, you will realize larger dividends than would be possible with your factory located in any other part of the country.

If you contemplate establishing an industry, we would be pleased to give further and full information regarding location along the Southern Railway System.

M. V. RICHARDS

Land and Industrial Agent Southern Railway

Room J

WASHINGTON, D. C.

The Yarn Market

Philadelphia, Pa.—The business in the yarn market last week as a whole was very light.

There were a few sales of 20,000 to 50,000 pounds, though there was little other trading. Prices of practically all of the coarse numbers were weak, and the new business of 5,000 pounds or more was taken by dealers who are in a position to undersell spinner's from a cent to cent and a half while those who had to submit offers to the spinners got only a small part of the business for quick deliveries. Manufacturers are accepting deliveries, but where dealers are behind they are not being pushed as a general thing.

Knitters are not buying yarns very freely. Their buying, with a few exceptions, is from hand to mouth, and they are getting concessions on what they do buy. Sales of small quantities of 24s Southern frame spun cones were made at 21 1-2 to 22 cents, 2s sold at 22 1-2 to 23 1-2 cents. The demand for combed yarn is no better than that for carded. Spinners are pretty well sold up and have advanced their prices to what buyers consider the prohibitive point. Dealers say their sales of fine numbers are limited to quantities ranging from a single case to a few thousand pounds.

Southern Single Skeins.

8s	17	—
10s	17 1-2	—
12s	18	—
14s	18	—18 1-2
16s	19	—
20s	20	—
26s	21	—21 1-2
30s	24 1-2	—25

Southern Two-Ply Skeins:

8s	17 1-2	—18
10s	18 1-2	—
12s	18 1-2	—19
14s	19	—19 1-2
16s	19	—20
20s	21 1-2	—
24s	22 1-2	—23
26s	23	—23 1-2
30s	25 1-2	—26
40s	33	—33 1-2
50s	39	—40
60s	45	—47

Carpet and Upholstery Yarn in Skeins:

8-3 hard twist	18	—
8-4 slack	18 1-2	—19
9-4 slack	19	—19 1-2

Southern Single Warps:

8s	17 1-2	—18
10s	18 1-2	—
12s	18 1-2	—19
14s	19	—
16s	19 1-2	—
20s	20 1-2	—
24s	21 1-2	—
26s	22	—22 1-2
30s	25 1-2	—
40s	31	—32

Southern Two-Ply Warps:

8s	18	—18 1-2
10s	18 1-2	—19
12s	19	—
14s	19 1-2	—20
16s	20 1-2	—21
20s	22	—22 1-2
24s	23	—23 1-2
26s	23 1-2	—24
30s	26	—26 1-2
36s	30	—31
40s	33	—34
50s	40	—41

Southern Frame Spun Yarn on Cones

8s	18	—
10s	18 1-2	—19
12s	19	—19 1-2
14s	19 1-2	—19 3-4
16s	20	—20 1-2
18s	20 1-2	—21
12s	21	—
14s	21	—21 1-2
16s	21 1-2	—22
18s	22	—22 1-2
20s	21 1-2	—
22s	22	—
24s	22 1-2	—23

Single Skeins Carded Peeler:

20s	25	—
24s	24	—24 1-2
26s	25	—
30s	26	—26 1-2
40s	31 1-2	—
50s	38	—

Two-Ply Carded Peeler in Skeins:

20s	25	—
30s	28	—28 1-2
30s-11's	34	—
36s	30 1-2	—31
40s	32 1-2	—33
50s	39	—40
60s	46	—47

Single Combed Peeler Skeins:

20s	26 1-2	—27
24s	27 1-2	—28
30s	30	—31
40s	37	—38
50s	45	—46
60s	52	—53

Two-Ply Combed Peeler Skeins:

20s	28	—28 1-2
24s	29	—29 1-2
30s	31	—32
40s	41	—42
50s	47	—49
60s	55	—58
70s	62	—65
80s	73	—77

Dealers in Mill Stocks and other Southern Securities

South Carolina and Georgia Mill Stocks.

	Bid	Asked
Abbeville Cot Mills, S. C.	75	
Aiken Mfg. Co. S. C.	72 1/2	
Amer. Spin. Co., S. C.	162	
Anderson Cot Mill, S. C. p	90	
Aragon Mills, S. C.	65	
Arcadia Mills, S. C.	90	
Arkwright Mills, S. C.	100	
Augusta Factory, Ga.	45	
Belton Cotton Mills, S. C.	100	110
Brandon Mills, S. C.	93	
Brogan Mills, S. C.	61	
Calhoun Mills, S. C.	51	61
Capital Cot Mills, S. C.	85	
Chiquola Mills, S. C.	167	
Clifton Mfg. Co., S. C.	75	
Clifton Mfg. Co., S. C. pfd	100	
Clinton Cot Mills, S. C.	125	
Courtenay Mfg. Co., S. C.	90	
Clumbus Mfg. Co., Ga.	92 1/2	100
Cox Mfg. Co., S. C.	70	
D. E. Converse Co., S. C.	75	
Dallas Mfg. Co., Ala.	100	
Darlington Mfg. Co., S. C.	75	
Drayton Mills, S. C.	90	
Eagle & Phenix Mills, Ga.	108	
Easley Cot Mills, S. C.	160	165
Enoree Mfg. Co., S. C.	25	
Enoree Mfg. Co., S. C. pfd	100	
Enterprise Mfg. Co., Ga.	70	
Exposition Cot Mills, Ga.	210	
Fairfield Cot Mills, S. S.	70	
Gaffney Mfg. Co., S. C.	60	
Gainesville Cot Mills, Ga., common	62 1/2	
Glenwood Mills, S. C.	141	
Glenn-Lowry Mfg. Co., S. C.	101	
Glenn-Lowry Mfg. Co., S. C. pfd.	95	
Gluck Mills, S. C.	91	
Granby Cot. Mills, S. C.	135	145
Granby C Mills, S. C., pfd	135	
Granite C Mills, S. C.	57	
Greenwood C Mills, S. C.	91	100
Grendel Mills, S. C.	102	
Hamrick Mills, S. C.	170	
Hartsville C Hills, S. C.	105	
Inman Mills, S. C.	100	
Inman Mills, S. C., pfd.	95	
Jackson Mills, S. C.	80	85
King, John P. Mfg. Co., Ga	130	
Lancaster Cot Mills, S. C.	98	
Lancaster C. M., S. C., pfd	65	
Langley Mfg. Co., S. C.	120	
Laurens Cot Mills, S. C.	155	
Limestone Cot Mills, S. C.	70	
Lockhart Mills, S. C.	60	75
Marlboro Mills, S. C.	90	93
Mills Mfg. Co., S. C.	105	
Mollobon Mfg. Co., S. C.	110	
Monarch Cot Mills, S. C.	125	135
Monaghan Mills, S. C.	135	140
Newberry Cot Mills, S. C.	115	
Ninety-Six Mills, S. C.	90	
Norris Cot Mills, S. C.	100	
Olympia Mills, S. C. pfd	90	
Orangeburg Mfg. Co., S. C., pfd.	91	
Orr Cotton Mills, S. C.	100	
Ottaray Mills, S. C.	100	
Oconee, S. C., com.	100	
Oconee, S. C., pfd.	100 & int.	
Pacolet Mfg. Co., S. C.	90	
Pacolet Mfg. Co., pfd.	100 & int.	

Charlotte, N. C. BROKERS

Southern Mill Stocks, Bank Stocks, N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

North Carolina Mill Stocks.

	Bid	Asked
Arlington	137	
Atherton	100	
Avon	110	
Bloomfield	112	
Brookside	115	
Brown Mfg. Co., com	131	
Cabarrus	120	
Cannon	95	
Chadwick-Hoskins	100	
Chadwick-Hoskins, pfd.	110	
Clara	200	
Cliffside	135	
Cora	136	
Dresden	125	
Dilling	100	125
Efird	100	
Elmira, pfd.	100	
Erwin Com	120	
Erwin, pfd	101	102
Florence	126	
Flint	140	
Gaston	90	
Gibson	80	
Gray Mfg. Co.	121	
Highland Park	150	200
Highland Park, pfd	100	
Henrietta	170	
Imperial	101	106
Kesler	115	
Linden	91	
Loray, pfd	181	
Lowell	251	
Lumberton	123	
Mooresville	100	
Modena	200	
Nokomis, N. C.	92	110
Ozark	120	126
Patterson	100	104
Raleigh	140	161
Roanoke Mills	136	
Salisbury	90	
Statesville Cot. Mills	95	100
Trenton, N. C.	20	30
Tuscarora	100	115
Washington, pfd.	100	
Washington	100	
Wiscasset	100	
Woodlawn	102	
Parker Mill, guaranteed	65	
Parker Mill, preferred	138	140
Parker Mill, common	94	
Pelzer Mfg. Co., S. C.	144	160
Pickens Cot. Mill, S. C.	100	115
Piedmont Mfg. Co., S. C.	25	
Poe, F. W. Mfg. Co., S. C.	60	64
Richland Cot Mills, S. C. p	110	
Riverside Mills, S. C.	72	
Sibley Mfg. Co., Ga.	260	
Spartan Mills, S. C.	50	60
Toxaway Mills, S. C.	10	
Tucapau Mills, S. C.	80	
Union-Buffalo Mills, S. C., 1st preferred	80	
Union-Buffalo Mills, S. C., 2nd preferred	85	
Victor Mfg. Co., S. C.	115	
Ware Shoals Mfg. Co., S. C.	115	
Warren Mfg. Co., S. C.	100	
Warren Mfg. Co., S. C., p	100	
Watts Mills, S. C.	100	
Whitney Mfg. Co., S. C.	100	
Williamston Mills, S. C.	100	
Woodruff Cot Mills, S. C.	100	

Personal Items

W. C. Blackwell has resigned as card grinder with the Cleghorn Mill, Rutherfordton, N. C.

Sam Maley, of Rome, Ga., is now master mechanic at the Floyd Cotton Mills, Rome, Ga.

G. W. Griffin has been promoted to second hand in carding at Drayton, S. C.

J. V. McCombs, overseer of spinning at the Wylie Mills, Chester, S. C., paid us a visit this week.

A. H. Rodgers, of Oxford, N. C., is now doing overhauling at the Erwin Mills No. 4, Durham, N. C.

Ed Pitts has accepted the position of yard foreman at the Elm City Mills, LaGrange, Ga.

M. W. Driver, has resigned as superintendent of the Eureka Cotton Mills, Chester, S. C.

Dover Jones, of Elm City Mills, LaGrange, Ga., is recovering from an accident which happened to him at the mill last week.

Weldon Bridges, overseer of carding at Wiscassett Mills No. 3, Albemarle, N. C., paid us a visit this week.

J. D. Thompson, of Pineville, N. C., has accepted the position of night overseer of spinning at the Columbia (S. C.) Mills.

H. F. Jones has resigned as superintendent of the Fort Mill (S. C.) Mfg. Co. No. 2 to become superintendent of the Aragon Mills, Rock Hill, S. C.

O. C. Wilson of Fountain Inn, S. C., has accepted the position of master mechanic at the Simpsonville (S. C.) Cotton Mills.

Will Greenwood, of the Dallas Mills, Huntsville, Ala., has accepted the position of second hand in weaving at the Merrimack Mills of the same place.

Wallace Long has resigned his position with the Union Bleaching and Finishing Works, Greenville, S. C., and is now with the Freeze Hosiery Mills, Hendersonville, N. C.

Etters has resigned as overseer of spinning at the Trio Mfg. Co., Forsythe, Ga., to become night superintendent at the Bibb Mill, Reynolds, Ga.

J. C. Nunnally is overseer of carding at the Cowpens (S. C.) Mfg. Co. Waddy R. Thomson has resigned as secretary and treasurer of the Fort Mill (S. C.) Mfg. Co. to accept a position at Laurens, S. C.

Southern Textile Association.

The program for the meeting of the Southern Textile Association at Greensboro, N. C., on June 29th, is being rapidly completed and final announcement will be made next week.

A large number are expected to be attend the Greensboro meeting

and additional interest is added by a prospective contest over the position of president.

Those most prominently mentioned for that office are: J. M. Davis, Newberry, S. C.; T. B. Wallace, Greenville, S. C., and T. M. McEntire, of Gastonia, N. C. None of these gentlemen have announced themselves as candidates, but the friends of each have been urging them to run and either is well qualified for the office.

No slate is made up for the officers of the Southern Textile Association. All elections are open and the man who gets the largest number of votes gets the office.

Run Over by Car.

A man named Moore, thought to be George Moore, who lives at the Vardry Mill, Greenville, S. C., was run over and seriously injured by a gas-electric car, bound from Greenville to Anderson. The injured man was taken to a hospital where it was found necessary to amputate both legs. At last reports he was doing well.

Man Painfully Cut.

A white man by the name of Jack Johnson was painfully cut last week in the Poe Mill village when it is said another man pulled out a knife and slashed him across his breast. The matter has not been reported to the sheriff and consequently little is known of the scrape.

Banquet at Ottaray.

Quite an enjoyable affair of last week was the banquet given at Ottaray, by Mr. Lewis W. Parker, president of the mill in compliment to the Woman's club. There were present about twenty-five guests besides the members of the club. Prof. Davis Jefferies, superintendent of the city schools, delivered an address on the "Mothers Duty to Her Child." Miss Thomas of New York gave an entertaining and instructive talk on the "Work Being Done by the Women of the United States." Miss Mac Jones of Greenville gave several readings which delighted her hearers.

Crop Damage Less.

Washington, May 15. — The extent of damage to the cotton crop due to different causes was less last year than in 1910 or 1909, the Department of Agriculture has determined. During these three years

the department has had its correspondents report on the damage and its cause. Climatic conditions caused about 61.3 per cent of the total damage to the 1911 crop compared with 65 per cent in 1910. Insects were the cause of 24.4 per cent of the damage last year, 17.2 per cent in 1910 and 19.5 per cent in 1909. Deficient moisture was the chief cause of damage while the insect damage was second.

The department estimates the money loss for 1911 at \$315,456,000 compared with \$414,383,000 in 1910 and \$458,546,000 in 1909.

Cotton Acreage Report.

Washington, May 15. — A revision by the Department of Agriculture of its preliminary estimate of the areas planted to cotton last year based on the results of a special investigation and the census bureau's report of the quantity of cotton ginned that season places the 1911 acreage at 36,681,000 instead of 35,004,000 acres as estimated by the department last June. On these revised figures the department will base its estimate of the acreage planted to cotton this year. The report is scheduled for issuance Tuesday, June 4, at noon.

The yield of cotton per acre in 1911 is estimated at 207.7 pounds the largest on record since 1867 with one exception, 1898, compared with 170.7 pounds in 1909. The area picked last year was about 36,045,000 acres, about 1.7 per cent of the planted area having been abandoned.

Before Election.

The following is an extract from an address to the voters of South Carolina by a candidate for the United States Senate:

"Since the Panama Canal will soon be completed every effort possible should be made to build up our Merchant Marine. We are told that American ships carry no greater proportion of our produce now than they did one hundred years ago. The law which does not allow foreign-bought vessels—American registry—should be repealed. All possible means should be provided so that our people can find a nearer and better market for what they have to sell. Moreover, we would endeavor to have consuls appointed to foreign nations who are familiar with the goods which we have to sell in that particular country. It

should be our pleasure to endeavor to form treaty alliances whereby our trade would be extended to all markets of the world and especially to Central and South America. We are informed that those countries spend, at least, seven dollars in Europe to where they spend one dollar in the United States. With proper shipping and banking facilities no doubt a great market could be created for our cotton goods and farm products of the South.

"We are told that there are over one billion five hundred million people in the world; five hundred millions of these are clothed; two hundred millions go unclothed, and the remaining seven hundred and fifty millions go only partially clad. It is estimated that it would take forty-two million bales of cotton to clothe these people, hence there is not much chance of overproduction. We should inform ourselves as to where and how to sell to the best advantage."

The above sounds alright but somehow the candidates seem to forget about these things after they are elected and even now some of the congressmen are voting for a bill which will abolish the positions of Commercial Agents.

Dyeing Raw Stock.

The dyeing is generally done in large revolving machines made by different concerns, and making about 12 turns per hour. The amount of stock generally placed in the machine is from 1,00 to 1,200 pounds of raw stock, which is generally broken up on a picker before being placed in the machine. Some mills have the help to do this by hand; but it results in uneven dyeing. The first manipulation, after wetting out the raw stock properly with cold water, consists in turning on the steam at full force; adding 20 pounds of soda ash, and one pail of chip soap, previously dissolved; keeping sufficient steam on to boil continuously for two hours, afterwards letting off the liquor and washing for one hour in cold water. The stock is now ready for dyeing in the same machine. Since some mills have trouble with their dyed raw stock, which is often hard to card, the following process will no doubt prove of interest. Start the machine in the regular way with sufficient cold water; add the required dyestuffs; then one gallon of soluble oil and ten pounds of soda ash and turn on a full head of steam. When up to the boiling point, add the usual amount of Glauber's salts, or common salt, needed; and keep sufficient steam on all the time. The time required before sampling is from one to two hours. By the addition of soluble oil, it makes the stock so much easier to card, and this I know to be correct from practical experience as a dyer on raw stock, yarns, and piece goods.—Fiber and Fabric.

"I wonder when the first surgical operation was performed."

"I suppose it was in Adam's time. When he had his fall he must have broken something."—Exchange.



SCOTCH SIZE OR KLEISTER

THIS IS an old preparation, well known to the majority of Cotton Manufacturers, on account of the general satisfaction it has always given. A binder for both fine and coarse counts as it combines readily with any starches, lays the surface fibre and holds the size well on the yarn. Manufacturers of exports and denims find it valuable, as it reduces shedding and loom waste to a minimum. Should use Raw Tallow or Soluble Tallow in addition. Write for formula.

ARABOL MANUFACTURING CO.

100 William Street, New York

CAMERON MacRAE Southern Sales Agent CHARLOTTE, N. C.

Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell, the want columns of the **Southern Textile Bulletin** afford a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

Employment Bureau.

The Employment Bureau is a feature of the **Southern Textile Bulletin** and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau.

Loom Fixers Wanted.

Want several good loom fixers C. & K. looms on ducks and drills. Apply in person or by letter to Alexander City Cotton Mills, Alexander City, Ala.

BEAMERS WANTED.

WANTED AT ONCE, FOR NIGHT WORK, 10 SHORT CHAIN BEAMERS, PAY \$2.40 PER NIGHT. NONE BUT FIRST CLASS BEAMERS NEED APPLY. ADDRESS,

A. C. WEST,
OVERSEER BEAMING,
LOCKE MILLS,
CONCORD, N. C.

Cloth Room Overseer.

WANT—Overseer of Cloth Room, one who understands napping; none but good men need apply. Mill has 400 looms. Give reference and experience, also wages expected. Good position for right man. Address No. 1017.

WANT position as overseer of spinning. Experience on all numbers but prefer fine work. Am from the South but for several years have been with fine yarn mills at New Bedford and other New England towns. Good references. Address No. 143.

WANT position as overseer of cloth room. 20 years experience. 10 years at present place. Strictly sober. Good references. Address No. 144.

Weavers and Fixers Wanted.

WANTED—At once, a few good Draper and Crompton Loom Weavers on Chambrays and Gingham. Good weavers earn with us from \$8.00 to \$12.00 per week. Can also use for our new loom addition some first class Draper and Stafford Loom Fixers. Write or apply in person at once to

DAN RIVER COTTON MILLS,
Danville, Va.

WANT position as superintendent or overseer of large card room. Have had long experience and am now employed. Address No. 145.

WANT position as superintendent. 27 years mill experience. 8 years on present position. Experienced on both white and colored goods. Satisfactory references. Address No. 146.

WANT position as overseer of weaving. Experience on both plain and fancy goods but would prefer box loom job. Have filled former positions satisfactorily and can get production at low cost. Address No. 147.

WANT position as superintendent in North Carolina, South Carolina or Northern Georgia. Long experience and can furnish best of references as to ability and character. Address No. 148.

WANT position as overseer of weaving. Married. Age 40. Have run some of the largest rooms in S. C. and Ga. Can give good references. Address No. 152.

WANT position as superintendent. Have had long practical experience and am now assistant superintendent of a large mill and giving satisfaction. Can give as reference my present employers. Address No. 149.

WANT position as superintendent or carder in a large mill. 15 years experience as carder. 4 years as superintendent. Experienced on both plain and fancies. Best of references. Address No. 150.

WANT position as overseer of weaving in a good mill. Have had eleven years experience on plain and check work. Address No. 151.

WANT position as overseer of weaving. 15 years' experience on both white and colored goods. Can furnish references from first class mills. Address No. 154.

WANT position as superintendent of either yarn or weaving mill of 5,000 to 15,000 spindles. At pres-

ent employed in fine colored goods mill. Age 32. Married. 20 years' experience. Good references. Address No. 155.

WANT position as overseer of carding or spinning. Have had long practical experience and am now holding position in first-class mill but prefer to change. Address No. 156.

WANT position as superintendent. 36 years of age. Strictly sober. Best of references. Would consider large carding or spinning job. Held present position six years. Address No. 157.

WANT position as overseer of spinning. 10 years' experience as overseer on No. 30's to 100's. Can give good references. Married. 30 years old. Address No. 158.

WANT position as superintendent. Have had long experience on coarse work and blanket manufacturing. First class references. Address No. 159.

WANT position as overseer of carding. Long experience and have always given satisfaction. Now employed but prefer to change. Good references. Address No. 160.

WANT position as overseer of slashing, beaming (long or short chain), spooling, warping or drawing-in. Have had long experience and am expert on sizing. Address No. 161.

WANT position as superintendent. Now employed but prefer to change. Can furnish first class references both as to character and ability. Address No. 162.

WANT position as overseer spinning. 20 years experience, both colored and plain work. Age 41 Married. Can furnish best of references. Address No. 163.

WANT position as superintendent of small mill, not over 8,000 spindle son hosiery yarn, or overseer of large card room. Good references. Address No. 164.

WANT position as overseer of spinning, twisting, or in winding room 18 years experience in spinning and twisting. Familiar with spooling, reeling and winding. Will not consider less than \$2.00 per day. Age 32. Married. Address No. 165.

WANT position as overseer of carding. Have had 21 years experience as overseer of carding in some of the best mills in the South. Can furnish the best of references. Address No. 167.

WANT position as mechanic or electrician. Have had practical experience in machine shop and electrical work. Can furnish good references. Would not consider less than \$2 per day. Address No. 168.

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WANT position as overseer of spinning. Have had long experience in some of the best mills of the South. Now employed. Will not accept less than \$3.50. Address No. 169.

WANT position as overseer of carding. 36 years old, married and can furnish best of references. Now employed in large mill, but wish to change. Address No. 170.

WANT position as superintendent. Now employed in that capacity, but wish to change. Am experienced, and well recommended. Address No. 171.

WANT position as overseer of weaving. Experienced on duck, drills, sheetings and osnaburgs. Now employed, but can change on short notice. Will not accept less than \$3.50. Address No. 172.

WANT position as superintendent or overseer of carding and spinning at not less than \$4.00. Now employed in a large mill, but wish to change. Good references. Address No. 138.

WANT position as overseer of carding. 35 years old, married. Good habits, good references and long experience. Now employed but want larger position. Competent for any size room. Address No. 173.

WANT position as overseer of carding in large mill or carder and spinner in small mill. Can give best of references and am strictly sober, with 14 years experience as carder. Address No. 175.

For July Cotton Report.

Washington, D. C. — The amended House bill directing the Secretary of Agriculture to make a revised crop report on the acreage of cotton in the United States as of July 1, each year was passed by the Senate. The house passed the bill on Feb. 6, and placed the acreage as of June 4. The Senate amended it, changing the date to July 1.

The bill will now go to a conference and it is expected will become a law. Cotton growers and traders in staple of goods are interested in the bill as it is expected to give more accurate reports of the cotton crop in the United States.

The Principles of Carding

Continued From Page 8.)

this combing action will gradually go so far as to cause "nap" by the incapacity to disentangle the fibre tufts into single fibres, and by rolling the fibres together in addition.

These three cases are quite distinct, and can be observed in any card. They should be properly understood, as the good working of the card depends so much on the condition of the cylinder clothing whether it is absolutely clear, too full of "filling," or in good working condition.

Before we can examine the real work of the flats we must dwell a moment on the heel and toe of the card. A vague idea exists that the peculiar shape of the flat clothing known as the "heel-and-toe" serves to facilitate the admission of the fibres under the flat, and thus tend to better work. As a matter of fact, the "heel-and-toe" is much more important than is generally supposed, as will be seen from the following explanation. To understand the explanation thoroughly it will be necessary to define first the expressions, the more so as the two terms "heel" and "toe" are very often mixed up. The heel is the side of the flat clothing which is nearest the cylinder when the card is working. It is the side of the flat against which the cylinder moves after it has passed the toe, and it does the real work of "carding," although the toe does also an appreciable amount of carding. However, the toe does more useful work in quite another respect. The toe being the side of the clothing which is farther away from the cylinder, and at that side of the flat to which the cylinder come near at first, the fibre tuft cuts or dashes into the flat through this toe. The heel and toe form a kind of inclined plane against which the fibre tuft dashes, which is taken round by the cylinder. As the plane is fairly easy, the fibres will rather go into the flat and remain in the direction the cylinder gives them, than recede into the cylinder clothing. If the toe were not there, and the whole flat came near the cylinder, then the fibres would first be worked hard against the points near the entrance into the flat, then rolling would take place, which would make carding practically impossible, and the wires would be spoilt. But worst of all (because there might be means and ways of overcoming these difficulties), the impurities would settle in approximately even quantities in the cylinder and in the flats. As it is, almost all the fibres are first taken by the flat (through the peculiar shape of the heel and toe) together with all the impurities, and only then the cylinder clothing takes the longer fibres out and cards them, and the carding process takes place with the better material only, whilst the impurities remain in the flat to be taken out by the stripping brush.

But the above facts affect the principles of carding to an even greater extent than is apparent on the surface. In fact, they fix even the question of which system of flat card should be adopted—whether the Wellman system, the

English system, or the Alsatian system. We shall, however, examine the advantages and disadvantages of each system, but before going into details we have to consider what really takes place between the cylinder and the flats. The usual reply is that there is a carding action between the two surfaces, but the actual process is of more complicated nature, as we shall presently see. To understand fully what really takes place we have to commence observations at the licker-in, at the point where the fibres are taken away from it by the cylinder clothing. The cylinder takes the fibre tufts on by the ends of the points of its clothing. We can safely assume that the fibres are not divided up into single fibres yet at this point, and it can be shown that this is so. Assuming that fact to stand, we can also see that these tufts will not enter into the filleting of the cylinder, but they will be laid on to the filleting, the tufts slipping easily between the fairly large interstices between the licker-in teeth. The tufts then go forward with the cylinder until the flats take the ends of the fibres which are sticking out, and which the centrifugal air current created by the cylinder projects into the path of the tops of the flats ("tops" is the technical name for the filleting on the flats); and as the flats are fairly empty, then the bulk of the short fibres and motes, etc., sink at once into the filleting of the flats, lodging themselves well between the teeth. The longer fibres cannot sink bodily into the filleting of the flats and they are held both by the cylinder and the flat clothing, a combing or carding action being brought to bear on them. The shorter fibres and motes, etc., which lodge in the tufts nearer to the cylinder—i.e., almost directly on its surface—the partake also of the combing action, and part of these so-called impurities go into the cylinder filleting, and part into the filleting of the tops. This explains the presence of much more impurities in the flats than in the cylinder clothing. We have here also the explanation why the flats of the flat cards are so valuable as a means for taking out the impurities.

After the above explanation it is quite clear that the flats cannot do their work so well in the "mixed card," because the fibres are already pressed well into the cylinder clothing, and the impurities with them. The action of the flats can therefore be only that of taking the ends of the long fibres projecting from the cylinder filleting and combing them out. The short fibres are already worked into the cylinder clothing before the contact of the cylinder filleting with the tops of the flats take place. This is quite apparent when it is considered that the rollers and clearers can take only a very limited amount of short fibre, and after a certain time these must pass to the cylinder filleting again, except in the case of a restricted amount that remains in the rollers as filling, especially in the so-called "roller" or worker.

RICHARD A. BLYTHE

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Cotton Yarns Mercerized and Natural

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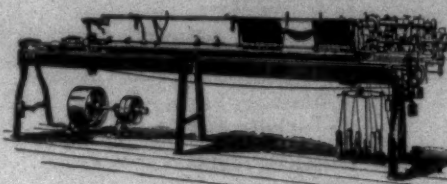
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Improved Inman Automatic BANDING MACHINE

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COLE BROTHERS

PAWTUCKET, R. I.



The only automatic machine in the world for making loop bands for spinning frames. Superior quality of bands without any cost of making. All bands exactly alike and no stretch of bands after they are put on. Saves child labor.

Also Beaming Machine to beam on to slasher beams.

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have put out so many incipient fires as to well merit the appellation "Standard of the World." They have been leaders in the reduction of insurance cost through actual preventive measures. They absolutely prevent large fires by putting out small ones.

Send Us Your Requirements

We will make the complete layout, and can furnish and install the entire system without delay, for we maintain plants, warehouses and offices in all parts of the United States and Canada.

Our Periodical

The Automatic Sprinkler Bulletin

is full of information about sprinkler protection.

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General Fire Extinguisher Co.

EXECUTIVE OFFICES:

PROVIDENCE, R. I.

40-38

Reprint from Textile Manufacturer of Manchester, Eng. (Continued Next Week.)

Changed Plans.

A Chicago banker was dictating a letter to his stenographer.

"Tell Mr. So-and-So," he ordered,

"that I will meet him in Schenectady."

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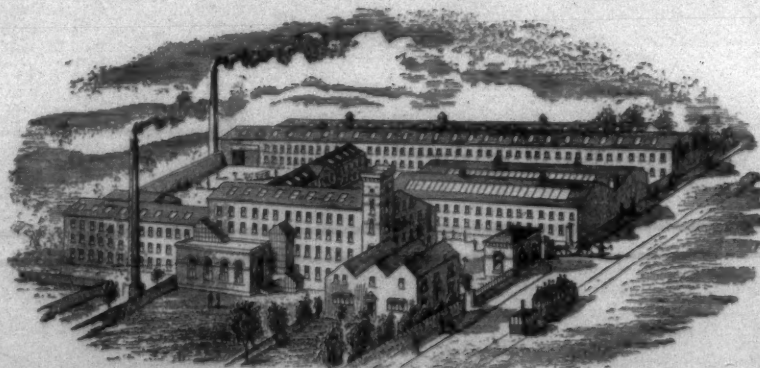
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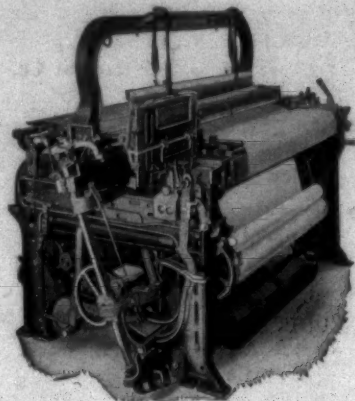
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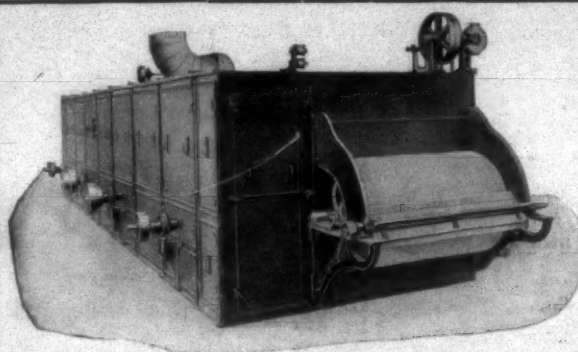
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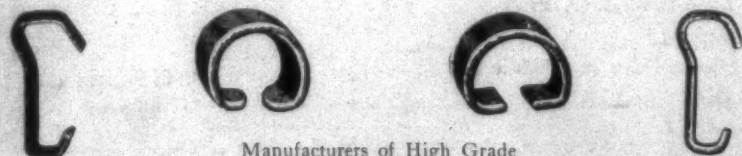
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